

SM/SMBW 2000 Series™ Filter



Spira-Mite[™]

Installation and User's Guide

IMPORTANT SAFETY INSTRUCTIONS
READ AND FOLLOW ALL INSTRUCTIONS
SAVE THESE INSTRUCTIONS

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If you have questions about ordering Pentair replacement parts, and pool products, please use the following contact information:

Customer Service (8 A.M. to 5 P.M. — Eastern and Pacific Times)

Phone: (800) 831-7133

Fax: (800) 284-4151

Technical Support

Sanford, North Carolina (8 A.M. to 5 P.M. — Eastern Time)

Phone: (919) 566-8000

Fax: (919) 566-8920

Moorpark, California (8 A.M. to 5 P.M. — Pacific Time)

Phone: (805) 553-5000 (Ext. 6312)

Fax: (805) 553-5515

Web site

visit www.pentairpool.com or www.starite.com to find information about Pentair products



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1620 Hawkins Ave., Sanford, NC 27330 • (919) 566-8000

10951 West Los Angeles Ave., Moorpark, CA 93021 • (805) 553-5000

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P/N 075122 Rev. E 4/5/06

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IMPORTANT SAFETY PRECAUTIONS



Important Notice:

This guide provides installation and operation instructions for the SM/SMBW 2000 Series™ Filter. Consult Pentair Water Pool and Spa™ with any questions regarding this equipment.

Attention Installer: This guide contains important information about the installation, operation and safe use of this product. This information should be given to the owner and/or operator of this equipment after installation or left on or near the filter.

Attention User: This manual contains important information that will help you in operating and maintaining this filter. Please retain it for future reference.

⚠ WARNING — Before installing this product, read and follow all warning notices and instructions which are included. Failure to follow safety warnings and instructions can result in severe injury, death, or property damage. Call (800) 831-7133 for additional free copies of these instructions.

Consumer Information and Safety

The SM/SMBW 2000 Series™ Filters are designed and manufactured to provide many years of safe and reliable service when installed, operated and maintained according to the information in this manual and the installation codes referred to in later sections. Throughout the manual, safety warnings and cautions are identified by the “⚠” symbol. Be sure to read and comply with all of the warnings and cautions.

⚠ WARNING — Do not operate the filter until you have read and understand clearly all the operating instructions and warning messages for all equipment that is a part of the pool circulating system. The following instructions are intended as a guide for initially operating the filter in a general pool installation, however each installation may have unique conditions where the starting procedure could be different. Failure to follow all operating instructions and warning messages can result in severe injury, death, or property damage.

⚠ WARNING — **THIS FILTER OPERATES UNDER HIGH PRESSURE.**



When any part of the circulating system, (e.g., clamp, pump, filter, valve(s), etc.), is serviced, air can enter the system and become pressurized. Pressurized air can cause the lid to be blown off which can result in severe injury, death, or property damage. To avoid this potential hazard, follow these instructions:

1. Before repositioning valve(s) and before beginning the assembly, disassembly, or adjustment of the clamp or any other service of the circulating system: (A) Turn the pump **OFF** and **shut OFF** any automatic controls to ensure the system is NOT inadvertently started during the servicing; (B) open the High Flow™ manual air relief valve; (C) wait until all pressure is relieved.
2. Whenever installing the filter clamp **FOLLOW THE FILTER CLAMP INSTALLATION INSTRUCTIONS EXACTLY.**
3. Once service on the circulating system is complete **FOLLOW SYSTEM RESTART INSTRUCTIONS EXACTLY.**
4. Maintain circulation system properly. Replace worn or damaged parts immediately, (e.g., clamp, pressure gauge, valve(s), o-rings, etc).
5. Be sure that the filter is properly mounted and positioned according to instructions provided.

IMPORTANT SAFETY PRECAUTIONS (continued)



WARNING — Due to the potential risk that can be involved it is recommended that the pressure test be kept to the minimum time required by the local code. Do not allow people to work around the system when the circulation system is under pressure test. Post appropriate warning signs and establish a barrier around the pressurized equipment. If the equipment is located in an equipment room, lock the door and post a warning sign.

Never attempt to adjust any closures or lids or attempt to remove or tighten bolts when the system is pressurized. These actions can result in a separation or failure of system components. This instantaneous release of energy can cause components to be accelerated to high velocities and to travel far distances. These components could cause severe personal injury or death if they were to strike a person.



WARNING — **Risk of electrical shock or electrocution.**



This pool filter must be installed by a qualified pool serviceman in accordance with the National Electrical Code and all applicable local codes and ordinances.

Always disconnect power to the pool equipment at the circuit breaker before servicing any of the equipment. Ensure that the disconnected circuit is locked out or properly tagged so that it cannot be switched on while you are working on the pool equipment. Failure to do so could result in serious injury or death to serviceman, pool users or others due to electric shock.

Position the filter and the air relief valve to safely direct water drainage and purged air or water. Water discharged from an improperly positioned filter or valve can create an electrical hazard that can cause severe personal injury as well as damage property.



WARNING — To reduce the risk of injury, do not permit children to use this product unless they are closely supervised at all times.



CAUTION — This filter is for use with permanently installed pools and may also be used with hot tubs and spas if so marked. Do not use with storable pools. A permanently installed pool is constructed in or on the ground or in a building such that it cannot be readily disassembled for storage. A storable pool is constructed so that it may be readily disassembled for storage and reassembled to its original integrity.

IMPORTANT SAFETY PRECAUTIONS (continued)

General Installation Information

The following information should be read carefully since it outlines the proper manner of care and operation for your filter system. You can expect maximum efficiency and life from your filtration system by following these instructions and taking the necessary preventative care.

- Have a trained pool professional perform all pressure tests.
- Do not connect the system to a high pressure or city water system.
- Trapped air in the system can create a hazardous condition. BE SURE to purge all air from the system before operating or testing equipment.
- DO NOT pressure test with compressed air!
- Check local codes for restrictions on backwash to waste piping, separation tank requirements and spent D.E. disposal requirements.
- DO NOT use more than the recommended amount of D.E. in your filter. To do so can cause a buildup of D.E. and “bridging” between the elements which will plug the filter.
- Piping must conform to local/state plumbing and sanitary codes.
- Support piping independently to prevent strains on filter or valve.
- Fittings restrict flow; for best efficiency, use the fewest possible fittings.
- A check valve installed ahead of the filter inlet will prevent contaminants from draining back into the pool.
- A check valve installed between the filter and heater will prevent hot water from backing up into the filter and deforming the internal components.
- To allow recirculation during precoat, (if precoat pot is used), install a recirculation line with shut-off between pad return line and pump suction.
- All wiring, grounding and bonding of associated equipment must meet local and/or National Electrical Code standards.

Section 1

Introduction

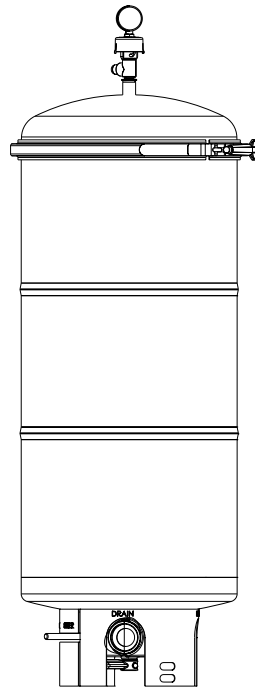
SM/SMBW 2000 Series™ Filter Overview

The stainless steel classic for unmatched water clarity

Diatomaceous earth (D.E.) results not just in clean water, but water that really sparkles. D.E. filters remove particles measured in microns that are individually undetected by the human eye, but combine to reduce water clarity. Pentair SM/SMBW 2000 Series™ stainless steel D.E. filters not only filter better, they make your life easier. That's because they feature curved grids to maximize filter surface area, and more filter area means longer periods between cleaning. In addition, a refined internal design minimizes flow restrictions so that the least amount of pumping power produces the maximum required flow rates—for lower utility costs.

Crystal clear water has never been easier

Like all Pentair filters, SM/SMBW 2000 Series™ D.E. filters provide optimum filtration efficiency, easy maintenance, and longer runs between cleanings. Their extraordinary dirt-holding capacity and easy cleanability make them the perfect choice for every pool.



SM/SMBW 2000 Series
D.E. Filter

General Features

- Exclusive curved filter grid design ensures an even flow and uniform distribution of D.E. for optimum filtration efficiency and water clarity.
- Stainless steel tank is strong and made to last for years and years.
- Available in a range of sizes, with and without backwash valves, to meet your exact requirements.
- Exclusive clamp ring design permits quick and easy access to internal components should service be necessary.
- 2" plumbing connections for maximum flow, greater efficiency.

Additional Features:

- Durable thermoplastic rotor will not corrode for long service life.
- Individually-removable grids for easy cleaning.
- Unique rotor seal keeps dirt out to ensure smooth operation and long life.
- Attractive design has no external plumbing to detract from the filter's clean lines.

Section 2

Filter Operation

This section describes how the SM/SMBW 2000 Series™ filter operates.


General Information

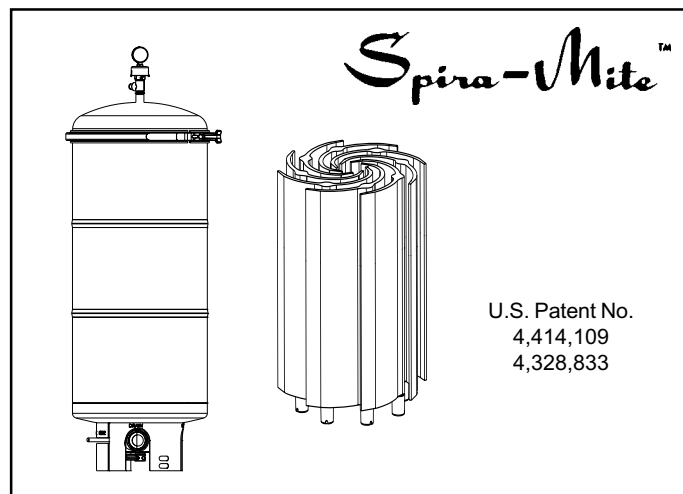
WARNING — THIS FILTER OPERATES UNDER HIGH PRESSURE.



Pressurized air can cause the lid to be blown off which can result in severe injury, death, or property damage. When clamped properly and operated without air in the water system, this filter will operate in a safe manner.

1. Warning labels should be affixed to the top of the filter and on the clamp bands at all times. Keep safety labels in good condition. Replace missing or damaged safety labels. {For free labels call (805) 553-5000 or (919) 566-8000.}
2. The "SM/SMBW" Series Filter has been listed and approved by the National Sanitation Foundation. This booklet will enable you to install and operate your pool filter in the correct manner. Correct installation and operation will result in the trouble free operation of a quality product, as well as prevent unnecessary repairs.
3. **Model SMBW Filter System**
 - a. Standard SM Series Filter with built-in backwash valve. Simplifies plumbing installations.
4. **Model SM Filter System**
 - a. Standard SM Series requires separate valves for backwash.

 **CAUTION** — Before starting any filter system, be sure the pump has been adequately primed by filling the strainer on the pump with water. Failure to do so will result in pump seal problems. **When installing in conjunction with a heater, a one-way check valve should be used between the filter and heater to prevent the backflow of hot water from damaging the filter internals.**



What is Diatomaceous Earth and how does it Filter Water

1. Diatomaceous earth is the skeletal remains of microscopic one-cell aquatic plants called diatoms, also known as diatomite, D.E., and more properly diatomaceous earth.
2. Under the microscope, these minute diatoms show an amazingly intricate design and variety of forms, such as disc-shaped, boat-shaped, needle-like and many have a lace-like porous structure.
3. When used as a filter aid, the diatomaceous earth is mixed with water to form a slurry for filter 'precoat'. This mixture is introduced into the filter system by means of a slurry pot, or by pouring directly into the surface skimmer with the pump running. The minute diatoms are deposited on the outer surface of the filter elements, forming a 'strawpile' layer or cake by interlacing and overlapping, and thus providing countless microscopic channels which entrap suspended impurities, but allow clear water to pass through without clogging.
4. We recommend the use of D.E. which is sold and labeled for use with swimming pools and spas. These grades of D.E. typically have a median particle size of 34 microns, which is ideal for most applications.

⚠ WARNING — Failure to operate your filter system or inadequate filtration can cause poor water clarity obstructing visibility in your pool and can allow diving in the shallow pool area, or diving into or on top of obscured objects which can cause serious bodily injury or drowning.

Filter Precoating Instruction

1. Mix the Diatomaceous Earth {D.E.} in a pail of water to form a slurry, then pour the mixture directly into the surface skimmer with the pump running. Insure that the right quantity of D.E. is used as shown in the D.E. Precoat Requirements below in Table 1.

**Diatomaceous Earth (D.E.)
Precoat Requirements**

Table 1.

Filter Model Number	* By Weight Pounds
2036	3.6
2048	4.8
2060	6.0
2072	7.2

* By Weight - 1 lb. of D.E. per 10 sq. ft. of filter surface area.

Section 3

Filter Installation

The following general information describes how to install the SM/SMBW 2000 Series™ Filter.

Note: **Before installing this product, read and follow all warning notices and instructions starting on page ii.**

General Filter Information

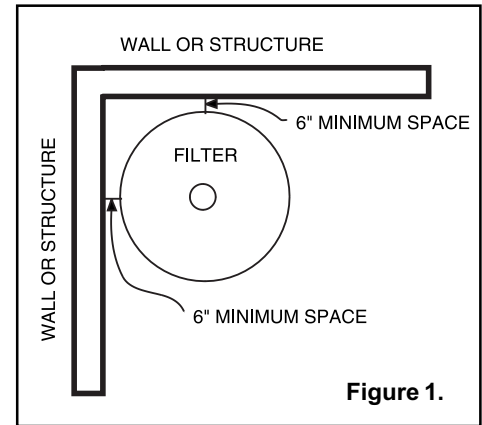


WARNING — **THIS FILTER OPERATES UNDER HIGH PRESSURE.** When any part of the circulating system, (e.g., clamp, pump, filter, valve(s), etc.), is serviced, air can enter the system and become pressurized. Pressurized air can cause the lid to be blown off which can result in severe injury, death, or property damage. To avoid this potential hazard, follow these instructions:



1. Before repositioning valve(s) and before beginning the assembly, disassembly, or adjustment of the clamp or any other service of the circulating system: (A) Turn the pump **OFF** and **shut OFF** any automatic controls to ensure the system is NOT inadvertently started during the servicing; (B) open the manual air relief valve; (C) wait until all pressure is relieved.
 2. Whenever installing the filter clamp **FOLLOW THE FILTER CLAMP INSTALLATION INSTRUCTIONS EXACTLY.**
 3. Once service on the circulating system is complete **FOLLOW SYSTEM RESTART INSTRUCTIONS EXACTLY.**
 4. Maintain circulation system properly. Replace worn or damaged parts immediately, (e.g., clamp, pressure gauge, valve(s), o-rings, etc).
 5. Be sure that the filter is properly mounted and positioned according to instructions provided.
1. New pools have a tremendous amount of debris due to dirt in the lines, plaster dust, etc. This debris will be removed by the filter and will require daily backwashing of the filter until it is removed. Check the pressure gauge daily and backwash the filter when the pressure increases 8 - 10 psi over the initial reading. It will require several backwashings before the pool is clean. Thereafter, the normal filter cycle will be several weeks in a properly designed system. The filter cycle is lengthened or shortened by contamination loads.
 2. When installing backwash lines, it is recommended to install a vacuum breaker where the backwash line is over 40 feet long, or if the line discharges 10 feet or more lower than the water level of the pool. Operating at excessive vacuum levels can cause the tank to implode, which voids the warranty.
 3. A check valve is recommended between the filter and heater to prevent hot water backup from damaging the filter internals.
 4. The maximum operating pressure of the tank is 50 psi. Never operate the unit above this pressure or attach a pump to this filter that has a shut off pressure higher than 50 psi.
 5. Never install a chemical feeder or ozonator upstream of the filter. Always locate downstream with a check valve between the feeder and the filter.
 6. A positive shut off valve is not recommended downstream of the filter and/or heater. If the system is ever run with such a valve closed, the internal air vent becomes inoperative and an explosive situation could exist. Running the system with no flow can seriously damage the equipment.

7. Clean your filter when pressure reads between 8-10 psi higher than the original starting pressure. Your filter pressure reading will increase as it removes dirt from your pool. However, this buildup of pressure will vary due to different bathing loads, temperature, weather conditions, etc.
- a. MY ORIGINAL STARTING PRESSURE IS _____ psi (pounds per square inch). I SHOULD BACKWASH (CLEAN) THE FILTER AT _____ psi.
8. Check carton for any evidence of damage due to rough handling in shipment. If carton or any filter components are damaged, notify freight carrier immediately.
9. The filter should be mounted on a level concrete slab. Position the filter so that instructions, warnings and the pressure gauge are visible to the operator. It also should be positioned so that the piping connections, control valve and drain port are convenient and accessible for servicing and winterizing.
10. Provide space and lighting for routine maintenance access. Do not mount electrical controls over filter. Install electrical controls (e.g., on/off switches, timers, control systems, etc.) at least five (5) feet from the filter. This will allow you enough room to stand clear of the filter during system start up.
11. Allow sufficient clearance around the filter to permit visual verification that the clamp is properly installed around the tank flanges, see Figure 1.
12. Allow sufficient space above the filter to remove the filter lid for cleaning and servicing. This distance will vary with the model of filter you are using. See Table 2 for the required vertical clearance.



Model	Vertical Clearance Req.	NSF
SM/SMBW-2036	60 in.	yes
SM/SMBW-2048	66 in.	yes
SM/SMBW-2060	72 in.	yes
SM/SMBW-2072	78 in.	yes

Table 2.

How to Operate Filter

WARNING — THIS FILTER OPERATES UNDER HIGH PRESSURE.



When any part of the circulating system, e.g., clamp, pump, filter, valve(s), etc. is serviced, air can enter the system and become pressurized. Pressurized air can cause the lid to be blown off which can result in severe injury, death, or property damage. To avoid this potential hazard, follow these instructions.

1. Set rotary valve handle in the filter position.
2. Open air relief valve on top of filter. **STAND CLEAR OF THE FILTER.**
3. Start pump and wait until a steady jet of water emerges from air relief valve, then close valve.
4. Introduce the required amount of Diatomaceous Earth into filter, see [page 4, Table 1](#).
5. Filter will operate efficiently until pressure gauge indicates time for backwashing.

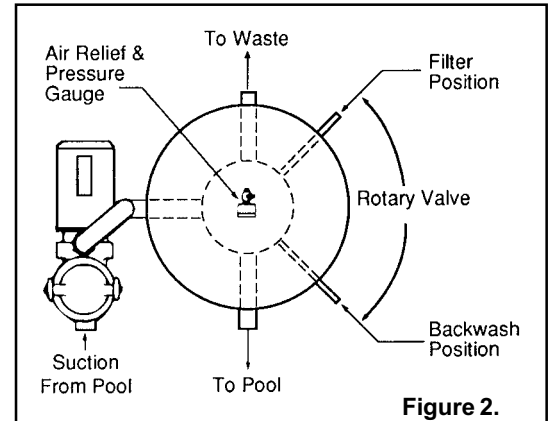
Section 4

Maintenance

To Backwash (Clean) Filter

WARNING — To prevent equipment damage and possible bodily injury and/or property damage, always turn the pump off before changing the valve positions.

1. Pressure backwashing is accomplished in four easy steps:
 - a. Turn pump off.
 - b. Rotate handle of rotary valve 90° as shown in Figure 2.
STAND CLEAR OF THE FILTER.
 - c. Turn pump on.
 - d. Backwash for approximately two minutes or until effluent appears clean. When backwashing is complete, turn pump off, rotate handle back to filter position and you are ready for filter operation again. Precoat filter with D.E. as shown on page 4, Table 1.



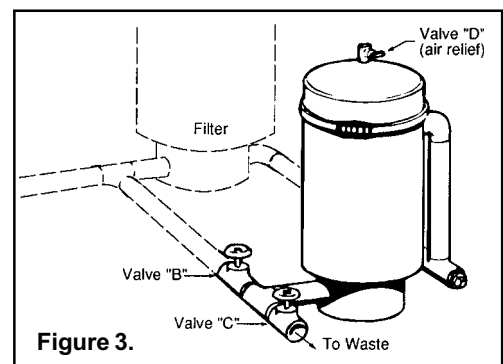
How to Clean the Separation Tank, performed after each backwash operation. (If installed or if applicable.)

The purpose of the separation tank is to collect the spent diatomaceous earth during backwashing (cleaning) of the filter. It must be cleaned after each backwash to prevent any clogging problems. It is recommended that this procedure be repeated to ensure complete backwashing of the filter. One backwashing may not be sufficient.

1. Open valve "C" and valve "D"* to drain separation tank. While the tank drains, the filter can be pre-coated and restored to the filter cycle. Be sure valve "B" is closed. See Figure 3.

WARNING — *Valve "D" is the air relief valve. It is important that this valve be opened before proceeding further. The tank is pressurized and is dangerous if the air is not vented prior to removing the lid clamp. Failure to open the air relief valve could cause the lid to separate resulting in serious bodily injury and/or property damage.

2. To remove the clamping ring, partially unscrew the adjustment knob and release the head of the T-bolt from the slotted bracket.
3. Remove tank lid with screwdriver or with a tool available from the manufacturer, see page 9, Figure 5. Avoid cutting rubber O-ring.
4. When water has drained from bag, remove bag from tank by grasping the handles of the bag with both hands; pushing down with one hand; pulling up with the other and lifting bag out.
5. Turn bag inside out and empty contents in a waste container. Rinse bag with garden hose.
6. Install bag in tank with the rim of the bag immediately below the tank inlet opening, then push down on the rim opposite the inlet opening until the rim is level.
7. Remove rubber O-ring and clean both O-ring and channel. Lubricate O-ring with a non-water soluble grease or silicone lubricant and replace O-ring in channel.
8. Clean the inside surface of the tank lid where it seals against the O-ring. Place lid on tank; push down on lid to seat in-place.
9. Replace the clamping ring. Engage the head of the T-bolt into the slotted bracket and tighten the adjustment knob. Hand tighten only.



How to Clean Filter Manually & Winterizing Instructions

(Required at least once a year and when winterizing your filter to prevent damage during freezing conditions.)

1. Turn pump off.
2. Set valve handle or valves for backwash position, (for SMBW only).
3. **STAND CLEAR OF THE FILTER** - Turn pump on and run for 3 minutes, then turn pump off.
4. Drain filter with respect to opening the air relief valves as discussed in a, b, and c, below.
 - a. To drain filter Model SM with gate valves, open drain valve and tank air relief valve and close all other valves.



WARNING — Valve "D" is the air relief valve. It is important that this valve be opened before proceeding further. The tank is pressurized and is dangerous if the air is not vented prior to removing the lid clamp. Failure to open the air relief valve could cause the lid to separate resulting in serious bodily injury and/or property damage.

- b. To drain filter model SMBW, set valve handle to backwash position and open tank air relief valve.
 - c. To drain filter model SMBW with Separation Tank, set valve handle to backwash position; open tank air relief valve; close all other valves and remove drain plug on backwash line.
5. To remove the clamping ring, partially unscrew the adjustment knob and release the head of the T-bolt from the slotted bracket.
6. Remove tank lid with screwdriver or with a tool available from the manufacturer, see [page 9](#), Figure 5. Avoid cutting rubber O-ring or bending of lid or tank O-ring channel.
7. Use garden hose to rinse down filter elements until all debris has been flushed from tank. Then screw drain plug on backwash line on models with Separation Tank.
8. Unscrew wing nut; remove washer and unclip air vent tube from holding wheel. Remove holding wheel.



WARNING — Please heed all manufacturers' posted instructions, warnings and cautions when using muriatic acid.

9. Lift out filter elements and scrub each element with a soft brush. If elements are coated with scale, it will be necessary to brush with a mild solution of muriatic acid (10 parts water to 1 part muriatic acid). Rinse elements with water.
10. Remove manifold and inspect for damage. Replace rotor O-ring & lubricate as needed.
11. Replace clean elements in manifold sockets; notch on element will guide it to proper position. All elements are interchangeable.
12. Replace holding wheel over center rod; place washer over rod and turn holding wheel until elements spread to widest gap. Replace washer, then screw wing nut on rod. **Do not tighten nut beyond finger tight.** Be sure to clip air vent tube back into slot on holding wheel. Clean vent tube screen cap of any debris.
13. Remove rubber O-ring and clean both O-ring and channel. Lubricate O-ring with a non-water soluble grease or silicone lubricant and replace O-ring in channel.
14. Clean the inside surface of the tank lid where it seals against the O-ring. Place lid on tank; push down on lid to seat in place.
15. Replace the clamping ring. Engage the head of the T-bolt into the slotted bracket and tighten the adjustment knob. (Hand tighten only.)
16. To restore to the filter cycle, refer to the operating and cleaning instructions of the filter model involved. When winterizing, ensure that all water is removed from the lower internal portion of the filter.

How to Use the Filter Lid Opener Tool

1. Turn pump off.
2. Open the air relief valve and wait for tank water to drain into pool. See Figure 4.
3. Remove the clamp ring.
4. Insert the filter lid opener as shown in Figure 5.
 - a. The tool fits **under** the O-Ring.
5. Lift the tank lid with the filter lid opener in several places around the tank.
6. Consult [page 7](#) for Filter Cleaning and [pages 5 and 6](#) for Filter Operating Instructions.

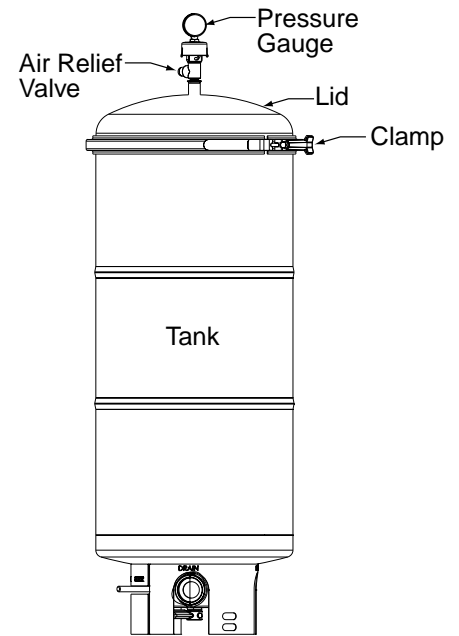


Figure 4.

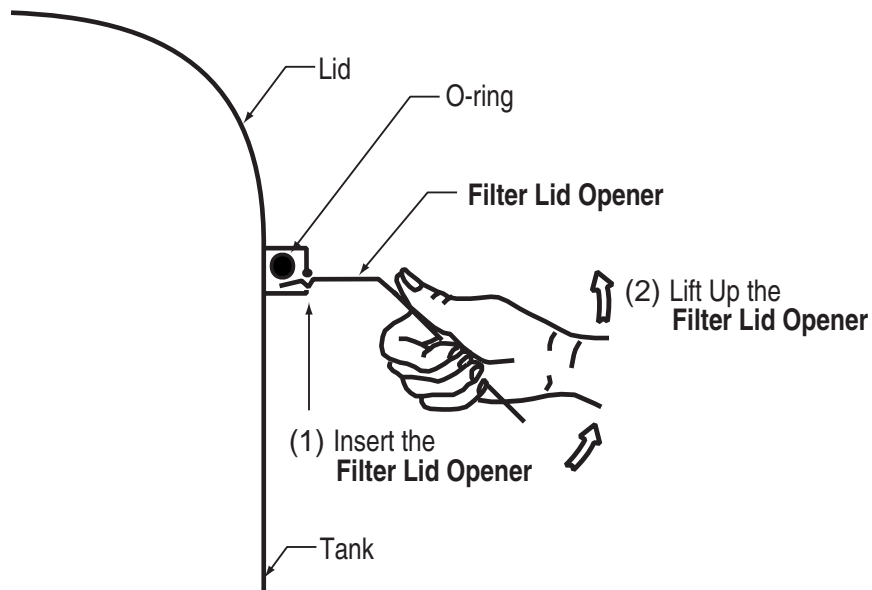


Figure 5.

The Pentair Water Pool and Spa Filter Lid Opener Tool may be used on any stainless steel filter tank manufactured by Pentair Water Pool and Spa.

Section 5

Troubleshooting

Use the following troubleshooting information to resolve possible problems with your SMBW 2000 Series™ Filter.

⚠ WARNING — THIS FILTER OPERATES UNDER HIGH PRESSURE.



When any part of the circulating system, (e.g., clamp, pump, filter, valve(s), etc.), is serviced, air can enter the system and become pressurized. Pressurized air can cause the lid to be blown off which can result in severe injury, death, or property damage.

1. If you are not familiar with your pool filtering system and/or heater:
 - a. **Do NOT** attempt to adjust or service without consulting your dealer, or a qualified pool technician.
 - b. Read the entire Installation & User's Guide before attempting to use, service or adjust the pool filtering system or heater.

Note: Turn off power to unit prior to attempting service or repair.

Problems and Corrective Actions

SYMPTOMS	WHAT TO LOOK FOR	RECOMMENDED ACTION
Earth (D.E.) to Pool NOTE: Be sure the foreign material in the pool is diatomaceous earth.	Internal parts not assembled correctly.	Check assembly of internal parts making sure they are correctly in place.
	Damaged manifold.	Replace manifold.
	Torn element fabric.	Repair fabric or replace element.
	Diatomaceous earth back up at main drain.	Check for air leaks, repair as necessary. Air leaks can cause system to drain down allowing D.E. back to the pool.
	Missing vent cap.	Replace cap.
Leak at Lid	Damaged O-Ring.	Replace O-Ring.
	Contaminated O-Ring.	Clean O-Ring; clean inner lip of lid and retainer band at top of tank.
	Clamping band too loose.	Tighten clamping band.
	Crack in lid or tank body.	Replace cracked part.
High Pressure Reading on Filter Gauge	Restriction on discharge side.	Locate and correct restriction of filter.
	Calcium deposits on filter elements.	Remove and acid wash elements.
	Excessive water flow through filter (pump horsepower may exceed filter flow rate).	Establish pump flow rate and compare with max. filter flow rate requirement.
	If heater is included in system, flow valve on heater may be stuck open.	Adjust or replace flow valve as necessary.
	Filter gauge not working properly.	Inspect and repair gauge; replace if necessary.
Short Filter Cycle	Poor backwash procedure.	Use correct backwash procedure.
	Too little or too much D.E.	Backwash and add correct amount of D.E.
	Algae in water.	Correct and maintain proper water chemistry. Frequent backwashing may be necessary until pool is free of algae.

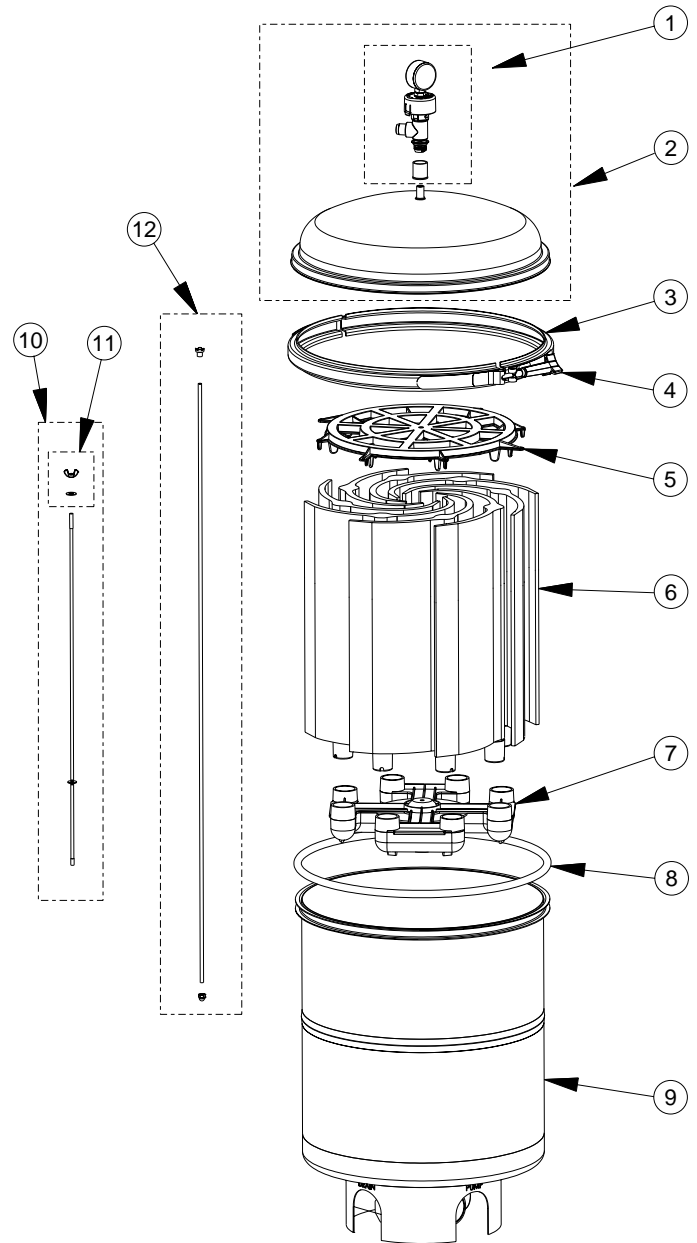
Section 6

Replacement Parts

Replacement Parts List

Model SM/SMBW 2000 Series™ Filter

ITEM	DESCRIPTION	P/N	QTY.
1	Manual Air Relief Valve Kit	188597	1
2	Lid w/Manual Air Relief Valve Kit	188603	1
3	Clamp Ring 2000 Knob Style	072898	1
4	Knob, Plastic	076033	1
5	Holding Wheel 2000	071019	1
6	Element 2036 - 18"	074923	8
	Element 2048 - 24"	074924	
	Element 2060 - 30"	074925	
	Element 2072 - 36"	074926	
7	Manifold 2000 Series - 8 Hole	073270	1
8	O-Ring, Channel w/Red Line	071442	1
9	Tank SM – Less Collector		1
	SM 2036	073437	
	SM 2048	073438	
	SM 2060	073439	
	SM 2072	073440	
	Tank SMBW – Less Casting		1
	SM 2036	073442	
	SM 2048	073443	
	SM 2060	073444	
	SM 2072	073445	
10	Center Rod Kit		1
	SM/SMBW 2036	188598	
	SM/SMBW 2048	188599	
	SM/SMBW 2060	188600	
	SM/SMBW 2072	188601	
11	Center Rod Hardware Kit Includes: Washer and Wing Nut	188596	1
12	Vent Tube Kit Includes: Screen Cap and Nut	075279	1
Not Shown			
	Collector 3 Port 2" SM Series only	072901	1



Flow Rate Table

Model Number	Filter Area Sq. Ft.	Vertical Clearance*	Filter Diameter	D.E. Required (Lbs.)	Flow Rate (GPM)**	Turnover Capacity-Res.		
						8hrs.	10hrs.	12hrs.
SMBW 2036†	35	60"	20"	3.6	70	33,600	42,000	50,400
SMBW 2048†	47	66"	20"	4.8	94	45,120	56,400	67,680
SMBW 2060†	58	72"	20"	6	116	55,680	69,600	83,520
SMBW 2072†	70	78"	20"	7.2	140	67,200	84,000	100,800

* Required clearance to remove filter elements

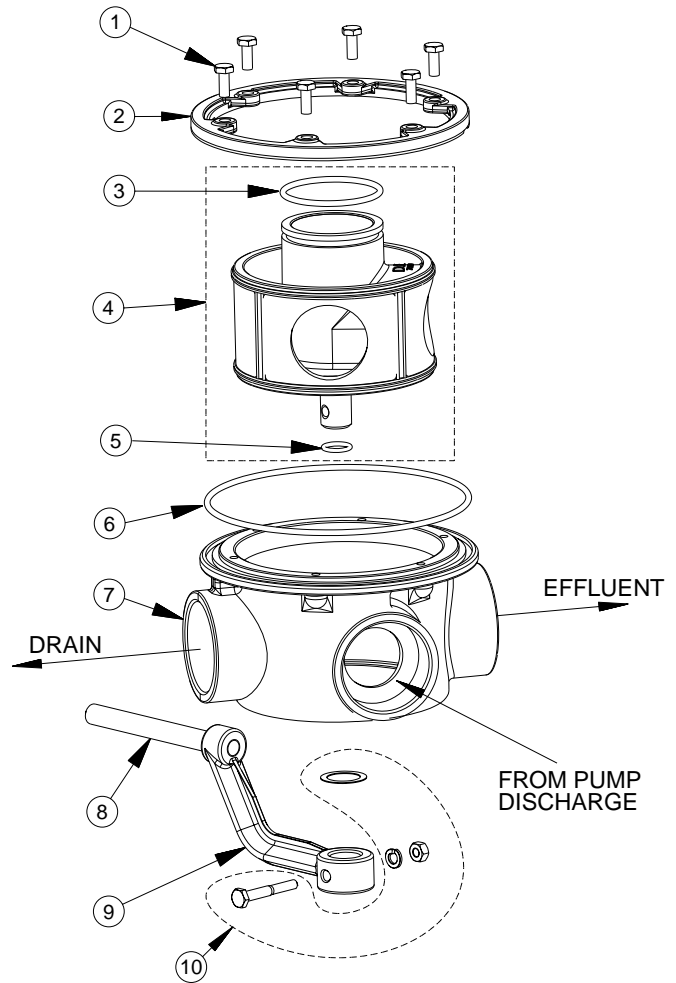
** Maximum flow rate

† Also available without backwash valve—SM models

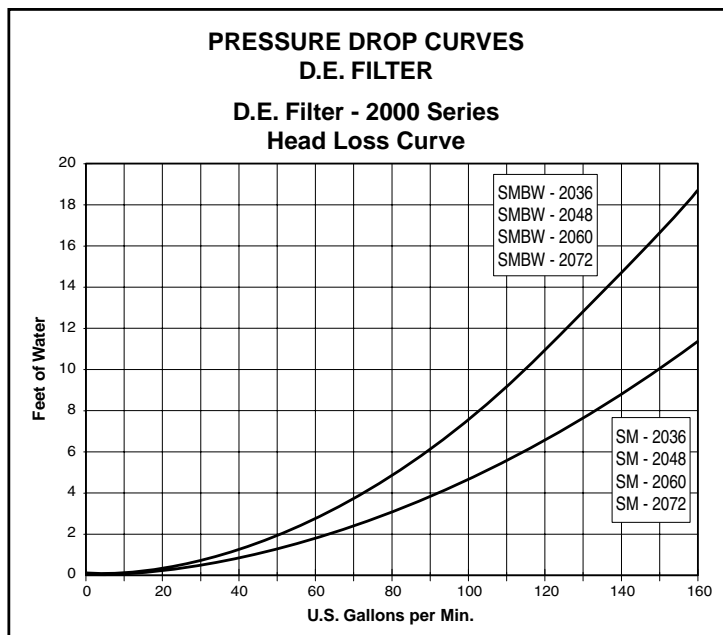
Replacement Parts List

Rotary Valve Model SMBW w/ Noryl Rotor

Item	Description	P/N	Qty.
	Valve BW w/Noryl Rotor Complete	073462	1
1	Screw 1/4-20 x 5/8" HH s/s	074927	6
2	Compression Ring	070731	1
3	O-Ring 2-228 Collar & Rotor	071426	1
4	Rotor Valve Noryl w/Tapered Seal	073370	1
5	O-Ring Buna 2-113 Rotor Shaft	071435	1
6	O-Ring 2-259 Valve 3 Port	071427	1
7	Casting, Valve Body, Brass 2" Thread	072112	1
8	Handle SMBW Rotor s/s	190026	1
9	Handle Extension BW Brass	070971	1
10	Rotor Valve Handle Hardware Kit Includes: Bolt, Lock Washer, Nut, Spacer Washer	188602	1



Head Loss Comparison Curves



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NOTES



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